Module 13   Perimeter, Area, and Volume
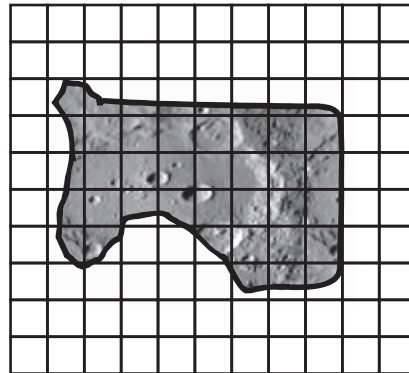**Lesson 3   Area: Irregular Shapes**

Lesson Objectives

- Estimate and calculate the area of irregular two-dimensional shapes.
- Estimate and calculate the area of more complex or irregular two-dimensional shapes by dividing them into more basic shapes.

Subtopic 1   Estimating Areas of Irregular Shapes
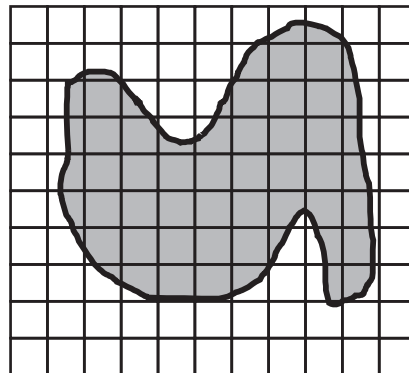
To estimate the area of an irregular shape:
- Cover shape with a _____ ___ _____ of known side length.
- Let c = squares _____ inside the boundary.
- Let b = squares through which _____ passes.
- $A \approx$ _____

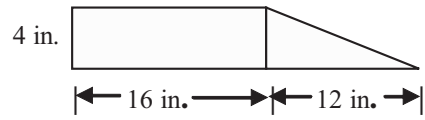**1**   Estimate the area of the lunar region.

Each ☐ is 1 mi^2.
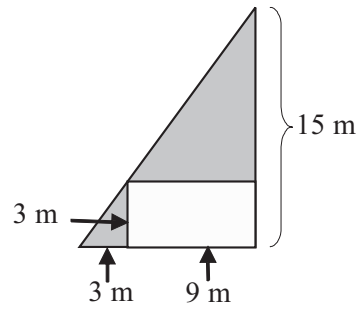
2   Estimate the area of the shape.

Each ☐ is 1 km^2.

Areas of Combined Shapes

3 Find the area of the shape.

4 in.

|← 16 in. →|← 12 in. →|

4 Find the area of the gray region.

15 m

3 m

3 m   9 m

5 Estimate the area of the gray region where the diameter of the circle is 13 inches.

12 in.

5 in.

13 in.